



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

SCIENCE

A WEEKLY JOURNAL DEVOTED TO THE ADVANCEMENT OF SCIENCE, PUBLISHING THE
OFFICIAL NOTICES AND PROCEEDINGS OF THE AMERICAN ASSOCIATION
FOR THE ADVANCEMENT OF SCIENCE.

EDITORIAL COMMITTEE: S. NEWCOMB, Mathematics; R. S. WOODWARD, Mechanics; E. C. PICKERING, Astronomy; T. C. MENDENHALL, Physics; R. H. THURSTON, Engineering; IRA REMSEN, Chemistry; CHARLES D. WALCOTT, Geology; W. M. DAVIS, Physiography; HENRY F. OSBORN, Paleontology; W. K. BROOKS, C. HART MERRIAM, Zoology; S. H. SCUDDER, Entomology; C. E. BESSEY, N. I. BRITTON, Botany; C. S. MINOT, Embryology, Histology; H. P. BOWDITCH, Physiology; J. S. BILLINGS, Hygiene; WILLIAM H. WELCH, Pathology; J. MCKEEN CATTELL, Psychology; J. W. POWELL, Anthropology.

FRIDAY, NOVEMBER 22, 1901.

THE GEOLOGY OF ORE DEPOSITS.

II.

CONTENTS:

<i>The American Association for the Advancement of Science:—</i>	
<i>The Geology of Ore Deposits, II.: PROFESSOR C. R. VAN HISE.....</i>	785
<i>Section E, Geology and Geography: H. B. PATTON.....</i>	794
<i>Membership of the Association.....</i>	800
<i>The American Microscopical Society: PROFESSOR HENRY B. WARD.....</i>	801
<i>Total Eclipse of the Sun: DR. S. A. MITCHELL...</i>	802
<i>Scientific Books:—</i>	
<i>Alaska: W J M. Calkins on the Protozoa: PROFESSOR W. M. WHEELER. Annual Report of the Chief of the Bureau of Steam Engineering: PROFESSOR R. H. THURSTON. Roscoe-Schorlemmer's Lehrbuch der organischen Chemie: PROFESSOR W. A. NOYES.....</i>	807
<i>Scientific Journals and Articles.....</i>	812
<i>Societies and Academies.....</i>	813
<i>Discussion and Correspondence:—</i>	
<i>Effect of Diminished Air Pressure: PROFESSOR R. DEC. WARD. Practical Ameliorations of English Grammar: PROFESSOR ALEXANDER F. CHAMBERLAIN.....</i>	814
<i>Shorter Articles:—</i>	
<i>Catalase, a New Enzym of General Occurrence: D. W. MAY. Toads killed by Squash-bugs: ALBERT F. CONRADL.....</i>	815
<i>Current Notes on Meteorology:—</i>	
<i>The Weather Bureau; Monthly Weather Review; Geological Changes of Climate in the Eastern Cordilleras; Tree Planting on the Prairies: PROFESSOR R. DEC. WARD.....</i>	817
<i>Proposed American Electro-chemical Society.....</i>	818
<i>The United States Naval Observatory.....</i>	819
<i>Scientific Notes and News.....</i>	820
<i>University and Educational News.....</i>	824

WE have now traced the metals of many ores to their first positions in the veins. In order to understand other cases, we must recall the facts as to the relations of 'richness with depth.' At this point I take my illustrations from regions outside of Colorado. James Douglass says that in the Appalachian region every copper mine has diminished in richness with depth. Near the surface rich oxidized products were found. Near the level of ground-water rich belts of sulphides occurred—in some instances extraordinarily rich. Below the level of rich sulphides every old mine has passed into cupriferous pyrrhotite, a sulphide of iron bearing a very small percentage of copper. In the Sierra Nevadas, of California, Mr. Lindgren states that near the surface the values range from \$80 to \$300 per ton; but a little way below the level of ground-water these values fall to \$20 or \$30 per ton, and no exceedingly rich deposits are found. You all know the history of the Comstock lode; and of the great bonanzas found above or about the 2,000-foot level, and which did not extend deeper. In the Lake Superior region the greatest iron-ore mines in the world occur; four-fifths or more of the entire product of iron of the United States comes from that region; but at the present time vastly more

MSS. intended for publication and books, etc., intended for review should be sent to the responsible editor, Professor J. McKeen Cattell, Garrison-on-Hudson, N. Y.